

Application No.: 10/689,172

Case No.: 58683US003

**Remarks**

Claims 1 – 11 and 29 – 38 are pending. Claims 12-28 were cancelled in response to a restriction requirement. Claim 38 has been cancelled.

Please cancel claim 38 without prejudice to the filing of related applications.

**§ 103 Rejections**

Claims 1-11 and 29-37 stand rejected under 35 USC § 103(a) as purportedly being unpatentable over Lange et al. (US 4,816,333) individually or, for claims 6 and 32, in view of Melancon et al. (US 2003/0152768) or, for all the claims, in view of EP 0 372 756 (EP '756). According to the Patent Office, the latter two references are taken as evidence of the state of the art. (See Office Action mailed October 28, 2005; ¶ 2.)

In order to establish a *prima facie* case of obviousness, the Patent Office must show, among other things, a reasonable expectation of success. This reasonable expectation of success must be founded in the prior art, and not based on Applicants' disclosure. (*In re Dow Chemical Co.*, 837 F.2d 469, 473 (Fed. Cir. 1988).) "A critical step in analyzing the patentability of claims pursuant to section 103(a) is casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field." (*In re Kotzrab*, 208 F.3d 1352, 1369 (Fed.Cir. 2000).) "When prior art contains apparently conflicting references, the Board must weigh each reference for its power to suggest solutions to an artisan of ordinary skill." (*In re Young*, 927 F.2d 588, 591 (Fed.Cir. 1991).)

According to the Patent Office, "Lange et al. at col. 4, lines 5-9, clearly teach that the reference primer is clearly suitable 'as a primer for adhering adhesives to substrates', with no restrictions whatsoever on the type of adhesive used." (See Office Action mailed October 28, 2005; ¶ 3.) Applicants respectfully submit that this statement must be considered in context, as the test for obviousness is what the references would have suggested to one of ordinary skill in the art. (See, e.g., *In re Young*, 927 F.2d 588, 591 (Fed.Cir. 1991).) Applicants respectfully submit that, in determining what Lange et al. suggests, one of ordinary skill in the art would consider the entire passage, i.e., "The excellent adhesion of the coating to the substrate and the adhesive of the test tape also demonstrates the utility of the coating as a primer for adhering

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adhesives to substrates, such as polymeric substrates, e.g., polyester films.” (Lange et al., col. 4, lines 5-9 (emphasis added).) Furthermore, one of ordinary skill in the art would realize, and the Patent Office has acknowledged, that Lange et al. fail to describe any adhesive other than the specific adhesive of the test tape used. (See Office Action mailed May 25, 2005; ¶ 12.) Applicants respectfully submit that these factors would detract from Lange et al.’s “power to suggest solutions to an artisan of ordinary skill.” (See In re Young, 927 F.2d 588, 591 (Fed.Cir. 1991).)

Although the Patent Office has rejected claims 1-11 and 29-37 as being unpatentable over Lange et al. individually, Applicants respectfully submit that the persuasive power of Lange et al. must be weighed against that of EP ‘756, as their disclosures are in conflict. (See In re Young, 927 F.2d 588 (Fed.Cir. 1991) (“When prior art contains apparently conflicting references, the Board must weigh each reference for its power to suggest solutions to an artisan of ordinary skill.”)) Specifically, Applicants have asserted that EP ‘756 teaches away from the present invention. (See Applicants’ Response mailed August 18, 2005; page 8.)

In response to this assertion, the Patent Office stated that “with respect to EP ‘756, to hold this reference ... is not relevant for its teaching that many different classes of adhesives can be used in conjunction with similar type primers to that which applicants use only because it also utilizes an ambifunctional silane in the primer is simply an unsupported allegation lacking any sort of supporting evidence on the record.” (Office Action mailed October 28, 2005; ¶ 12.) Applicants respectfully disagree.

First, Applicants did not intend to argue that the teachings of EP ‘756 are not relevant. To the contrary, Applicants submit that EP ‘756 is highly relevant as it clearly and unambiguously teaches away from the present invention. A reference such as EP ‘756 teaches away when a person of ordinary skill in the art, upon reading the reference, would be led in a direction divergent from the path that was taken by the applicant. (See, e.g., In re Haruna, 249 F.3d 1327, 1335 (Fed.Cir. 2001) (internal citations omitted).)

Second, Applicants cited numerous passages from EP ‘756 in support of the assertion that EP ‘756 specifically requires the use of nanoparticles modified by ambifunctional silane. (See Applicants’ Response mailed August 18, 2005; page 8.) However, to aid the Patent Office, Applicants’ position and relevant passages from EP ‘756 are discussed in more detail below.

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EP '756 describes a primer layer for pressure-sensitive and cold-seal adhesives. The primer comprises a continuous gelled or hydrolyzed network of inorganic particles. (See page 2, lines 40-44.) The Patent Office appears to be relying on EP '756 for its purported teaching that a multitude of adhesives are suitable for use with a primer that is purportedly very similar to the primer of Lange et al. (See Office Action mailed May 25, 2005; ¶ 12.) However, EP '756 repeatedly and explicitly states that the gelled network of nanoparticles must contain ambifunctional silane. (See, e.g., page 2, lines 40-44 ("The network contains a specified amount of a particular ambifunctional silane") and 50-51 ("The primer layer comprises a continuous network of inorganic particles ... containing an ambifunctional silane"; page 3, lines 22-23 ("The network must contain specified ambifunctional silane") and 49-50 ("A specified adhesion promoting effective amount of an ambifunctional silane must be present in or on the gelled network"); and page 5, lines 23-26 ("The ambifunctional silane is present as from 0.1% to 20% by weight of the solids content of the gelled particulate layer".))

Thus, although the primer of EP '756 may be similar to the primer of Lange et al. in that both contain nanoparticles, EP '756 expressly distinguishes the nanoparticles of its primer from those used in the primer of Lange et al. in that the nanoparticles of EP '756 must contain ambifunctional silane. Furthermore, EP '756 describes the role of the ambifunctional silane as providing multiple reactive species such that one reactive species can react with the nanoparticle and the other reactive species can react with one of the layers in contact with the primer. (See page 5, lines 23-33.) Such nanoparticles are expressly excluded from Applicants' definition of a primer that "consists essentially of nanoparticles." (See Specification page 11, lines 20-23; and Applicants' Response mailed August 18, 2005; page 7.)

Applicants respectfully submit that, in contrast to the limited persuasive power of Lange et al.'s assertion, which is based on experiments using a single adhesive, the persuasive power of EP '756, which the Patent Office relies on its description of numerous adhesives, is enhanced by experimental results "show[ing] that Sol-gel/corona constitutes a functional primer for adhesives over a range of film substrate types and adhesive types" (page 8, lines 31-32). (See, also, Examples 1 and 2 (using an acrylate adhesive), Example 3 (using a natural rubber adhesive), and Example 4 (using a cold seal acrylonitrile/butadiene adhesive).

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In summary, the Patent Office must consider the teachings of both Lange et al. and EP '756, without the benefit of hindsight or Applicants' disclosure, in determining obviousness. In view of the limited support presented in Lange et al., Applicants respectfully submit that, at best, an "obvious to try" situation exists. That is, Lange et al. may pique a scientist's curiosity to investigate further, but the disclosure of Lange et al. does not contain a sufficient teaching that the claimed result would be achieved. (See, e.g., *In re Eli Lilly & Co.*, 902 F.2d 943, 14 USPQ2d 1741 (Fed. Cir. 1990).) Although absolute predictability is not required, "a reasonable expectation that the beneficial result will be achieved is necessary to show obviousness." (*In re Merck & Co., Inc.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).)

Applicants respectfully submit that in view of the unambiguous teachings and experimental evidence in EP '756, no such reasonable expectation exists. In fact, EP '756 would lead one of ordinary skill "in a direction divergent from the path that was taken by the applicant" (*In re Haruna*, 249 F.3d 1327, 1335 (Fed.Cir. 2001)) and that purportedly suggested by Lange et al. Upon weighing each of these conflicting references for its power to suggest solutions to an artisan of ordinary skill it is clear that, the broad statement of Lange et al. notwithstanding, the disclosure of EP '756 would steer one of ordinary skill in the art to the use of primers containing nanoparticles modified by ambifunctional silanes, rather than primers consisting essentially of nanoparticles, as required in the present claims.

For at least these reasons, the rejection of claims 1-11 and 29-37 under 35 USC § 103(a) as being unpatentable over Lange et al. (US Patent No. 4,816,333) individually or, for all the claims, in view of EP 0 372 756 (EP '756) is unwarranted and should be withdrawn.

Melancon et al. is cited solely for its description of silicon polyurea based adhesives with reference to pending claims 6 and 32. (See Office Action mailed May 25, 2005; ¶ 12.) Applicants respectfully submit that the Patent Office has failed to show how Melancon et al. describe, teach, or suggest a primer consisting essentially of nanoparticles, and thus has failed to show how Melancon et al. overcome the deficiencies of Lange et al. in view of EP '756 as discussed above. For at least these reasons, the rejection of claims 6 and 32 under 35 USC § 103(a) as being unpatentable over Lange et al. (US 4,816,333) in view of Melancon et al. (US 2003/0152768) is unwarranted and should be withdrawn.

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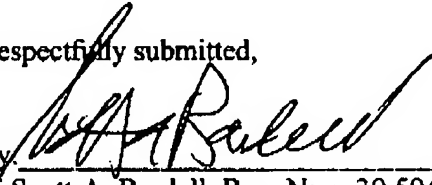
In view of the above, it is submitted that the application is in condition for allowance. Reconsideration of the application is requested and allowance of claims 1-11 and 29-37 at an early date is solicited.

If additional issues remain, Applicants respectfully request that the Examiner contact the Applicants' undersigned representative at the telephone number provided below.

12/20/05  
Date

Respectfully submitted,

By

  
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SAB/TMS/kmm

Enclosure: Copy of IDS Form PTO-1449, dated June 10, 2005, for the Examiner's acknowledgment.